THE

# WEEKLY ENTERTAINER.

For MONDAY, Auguſt 2, 1802.

## *Account of the Origin of Vaccine Inoculation.*

**Written by Dr. Edward Jenner, to whom Parliament have voted Ten Thouſand Pounds for the important Diſcovery.**

MY inquiry into the nature of the cow pox commenced upwards of twenty-five years ago. My attention to this ſingular diſeaſe was firſt excited by obſerving, that among thoſe whom in the country I was frequently called upon to inoculate, many reſiſted every effort to give them the ſmall pox. Theſe patients I found had undergone a diſeaſe they called the cow pox, contracted by milking cows affected with a peculiar eruption on their teats. On inquiry, it appeared that it had been known among the dairies time immemorial, and that a vague opinion prevailed that it was a preventive of the ſmall pox. This opinion I found was, comparatively, new among them, for all the older farmers declared they had no ſuch idea in their early days—a circumſtance that ſeemed eaſily to be accounted for, from my knowing that the common people were very rarely inoculated for the ſmall pox, till that practice was rendered general by the improved method introduced by the Suttons: ſo that the working people in the dairies were ſeldom put to the teſt of the preventive powers of the cow pox.

In the courſe of the inveſtigation of this ſubject (which, like all others of a complex and intricate nature, preſented many difficulties), I found that ſome of thoſe who ſeemed to have undergone the cow pox, nevertheleſs, on inoculation with the ſmall pox, felt its influence juſt the ſame as if no diſeaſe had been communicated to them by the cow. This occurrence led me to inquire among the medical practitioners in the country around me, who all agreed in this ſentiment, that the cow pox was not to be relied upon as a certain preventive of the ſmall

pox. This for a while damped, but did not extinguiſh my ardour; for as I proceeded, I had the ſatisfaction to learn that the cow was ſubject to ſome varieties of ſpontaneous eruptions upon her teats; that they were all capable of communicating ſores to the hands of the milkers; and that whatever ſore was derived from the animal was called in the dairy the cow pox. Thus I ſurmounted a great obſtacle, and in conſequence was led to form a diſtinction between theſe diſeaſes, one of which only I have denominated the true, the others the ſpurious, cow pox, as they poſſeſs no ſpecific power over the conſtitution.

This impediment to my progreſs was not long removed, before another, of far greater magnitude in its appearances, ſtarted up. There were not wanting inſtances to prove, that when the true cow pox broke out among the cattle at a dairy, a perſon who had milked an infected animal, and had thereby apparently gone through the diſeaſe in common with others, was liable to receive the ſmall pox afterwards.

This, like the former obſtacle, gave a painful check to my fond and aſpiring hopes; but reflecting that the operations of nature are generally uniform, and that it was not probable the human conſtitution (having undergone the cow pox) ſhould in ſome inſtances be perfectly ſhielded from the ſmall pox, and in many others remain unprotected, I reſumed my labours with redoubled ardour. The reſult was fortunate; for I now diſcovered that the virus of cow pox was liable to undergo progreſſive changes, from the ſame cauſes preciſely as that of ſmall pox; and that when it was applied to the human ſkin in its degenerated ſtate, it would produce the ulcerative effects in as great a degree as when it was not decompoſed, and ſometimes far greater; but having loſt its ſpecific properties, it was incapable of producing that change upon the human frame which is requiſite to render it unſuſceptible of the variolous contagion: ſo that it became evident a perſon might milk a cow one day, and having caught the diſeaſe, be for ever ſecure; while another perſon, milking the ſame cow the next day, might feel the influence of the virus in ſuch a way as to produce a ſore or ſores, and in conſequence of this might experience an indiſpoſition to a conſiderable extent; yet, as has been obſerved, the ſpecific quality being loſt, the conſtitution would receive no peculiar impreſſion.

Here the cloſe analogy between the virus of ſmall pox and of cow pox becomes remarkably conſpicuous; ſince the former, when taken from a recent puſtule, and immediately uſed, gives the perfect ſmall pox to the perſon on whom it is inoculated: but when taken in a far advanced ſtage of the diſeaſe, or when (although taken early) previouſly to its inſertion, it be expoſed to ſuch agents as according to the eſtabliſhed laws of nature cauſe its decompoſition, it can no longer be relied

relied on as effectual. This obſervation will fully explain the ſource of thoſe errors which have been committed by many inoculators of the cow pox. Conceiving the whole proceſs to be ſo extremely ſimple, as not to admit of a miſtake, they have been heedleſs about the ſtate of the vaccine virus; and finding it limpid (as part of it will be even in an advanced ſtage of the puſtule, when the greater portion has been converted into a ſcab), they have felt an improper confidence, and ſometimes miſtaken a ſpurious puſtule (which the vaccine fluid in this ſtate is capable of exciting) for that which poſſeſſes the perfect character.

During the inveſtigation of the caſual cow pox, I was ſtruck with the idea that it might be practicable to propagate the diſeaſe by inoculation, after the manner of the ſmall pox, firſt from the cow, and finally from one human being to another. I anxiouſly waited ſome time for an opportunity of putting this theory to the teſt. At length the period arrived. The firſt experiment was made upon a lad of the name of Phipps, in whoſe arm a little vaccine virus was inſerted, taken from the hand of a young woman who had been accidentally infected by a cow. Notwithſtanding the reſemblance which the puſtule, thus excited on the boy's arm, bore to variolous inoculation, yet as the indiſpoſition attending it was barely perceptible, I could ſcarcely perſuade myſelf the patient was ſecure from the ſmall pox. However, on his being inoculated ſome months afterwards, it proved that he was ſecure.*

This caſe inſpired me with confidence; and as ſoon as I could again furniſh myſelf with virus from the cow, I made an arrangement for a ſeries of inoculations. A number of children were inoculated in ſucceſſion, one from the other; and after ſeveral months had elapſed, they were expoſed to the infection of the ſmall pox, ſome by inoculation, others by variolous effluvia, and ſome in both ways—but they all reſiſted it. The reſult of theſe trials gradually led me into a wider field of experiment, which I went over not only with great attention, but with painful ſolicitude.

This became univerſally known through a treatiſe publiſhed in June, 1798. The reſult of my further experience was alſo brought forward in ſubſequent publications in the two ſucceeding years, 1799 and 1800. The diſtruſt and ſcepticiſm which naturally aroſe in the minds of medical men, on my firſt announcing ſo unexpected a diſcovery, has now nearly diſappeared. Many hundreds of them from actual experience, have given their atteſtations that the inoculated cow pox proves a



* This boy was inoculated nearly at the expiration of five years afterwards with variolous matter, but no other effect was produced beyond a local inflammation around the punctured part upon the arm.

perfect ſecurity againſt the ſmall pox; and I ſhall probably be within compaſs if I ſay, thouſands are ready to follow their example—for the ſcope that this inoculation has now taken is immenſe. An hundred thouſand perſons, upon the ſmalleſt computation, have been inoculated in theſe realms.

The numbers who have partaken of its benefits throughout Europe, and other parts of the globe, are incalculable; and it now become too manifeſt to admit of controverſy, that the annihilation of the ſmall pox, the moſt dreadful ſcourge of the human ſpecies, muſt be the final reſult of this practice.

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## WEALTH *and* GREATNESS SCRUTINIZED.

VISIT the manſions of the great, and the palaces of the mighty; obſerve the ſplendour and magnificence of their appearance, the extent of their poſſeſſions, the variety of their amuſements, the deference with which they are every where received, and the homage which they are able to command from their inferiors and dependants:—"What can theſe men want, which it is in the power of human nature to enjoy? If contentment is any where to be found on earth, it muſt ſurely be amongſt thoſe whom fortune hath thus exalted." Such, perhaps, would be the firſt reflection of a ſuperficial obſerver. But continue amongſt them till you ceaſe to be dazzled by the glare of external pomp; take notice of the envy and jealouſy which are continually riſing between rival candidates for poſts of honour and profit; obſerve how frequently it happens, that in the midſt of affluence and grandeur, they loſe the enjoyment of their preſent poſſeſſions through an impatient deſire of ſome object yet unobtained—an object, perhaps, of no great value, in compariſon with the treaſures they already poſſeſs; follow them into the ſcenes of private life, and there remark how little ſatisfaction they appear to find in their enjoyments, and how frequently diſappointment and ſatiety embitter their cup of pleaſure, and care and fretfulneſs baniſh ſleep from their pillows; what will be the conſequence of your ſcrutiny? You will at leaſt conclude that real contentment is as ſeldom found in the palaces of the great, as in the cottages of the poor, who are expoſed to ſo much labour, hardſhip, and fatigue, and of whom many find it a work of the greateſt difficulty to acquire even neceſſary ſupports, whilſt few of the amuſements, and none of the luxuries of life, with which others abound, lie within their reach.

*On*

## *On the apparent Elevation of Objects above the Horizon.*

By Profeſſor De Luc.

IT is well known, that on the borders of lakes, the banks of broad rivers, and the ſhore of bays, a certain optical illuſion often takes place when the ſpectator is ſtationed in a high point of view. The oppoſite bank, under certain circumſtances, is ſeen as it were floating in the air; and this phenomenon is aſcribed to refraction: but in my opinion it proceeds from a different cauſe.

About two years ago I obſerved the phenomenon in queſtion in one of thoſe extenſive turf moors that occur ſo often among the heights in Bremerlande, through which I was then travelling. The trees which bordered this moor, toward the horizon, appeared to me to be floating in the air. I at firſt conjectured, according to analogy, that there muſt be a lake or river at the end of the turf moor; but the poſtillion who drove the carriage aſſured me that this was not the caſe.

In the month of July this year, being in the ſame diſtrict, I ſaw a ſimilar phenomenon, and under circumſtances which induced me to examine it with more attention. I was on the road between Bremervörde and Brederkeſa, proceeding in a north-eaſt direction. It was about nine in the morning; the heavens were covered with light clouds, yet the ſun appeared through them a little behind me on the right, and over a turf moor which extended to the horizon, and was bordered with a row of trees. When the phenomenon firſt appeared, I was travelling down an eminence on a road adjacent to the edge of the moor, which entered it a little way, and then proceeded up an oppoſite hill. The variations which I obſerved in the phenomenon as I advanced ſlowly down the hill, induced me to diſmount, that I might be able every now and then to turn back. What I obſerved on this occaſion was as follows:

At the moment when I was about to deſcend, I could ſee and obſerve from the higheſt point of the hill a very large ſurface of the turf moor, which extended itſelf with increaſing breadth toward the horizon; the diſtance of which I eſtimated at a German mile. From this pretty high point of ſight, I could perceive that the trees at the extremity of the moor did not ſtand exactly in a line, but that they formed a ſort of wood, which extended backward on the other ſide, and, on the ſide next to me, had ſome projecting curves, but in ſuch a manner that the row ſeemed uninterrupted and continued.

The firſt thing that ſtruck me as I deſcended, was, that at the bottom of this row of trees, and near the extremity which was oppoſite to me, there appeared an aperture where there ſeemed to be no trees, and where I thought I could perceive the heavens

heavens under a line of trees which I conſidered as further diſtant, becauſe their colour was not ſo dark, and becauſe they appeared ſmaller than the trees of the firſt row between which I ſaw them. This ſeparated part of the row ſeemed to be completely floating in the air; the horizon in the interval of the trees of the firſt row was bounded by the ſurface of the turf moor, and I imagined that I ſaw the heavens between this extreme ſurface of the moor and the row of the moſt diſtant trees.

It was at this moment I alighted: I then turned back, aſcended the hill a little, and ſaw the trees which attracted my attention gradually aſſume their former appearance. The whole ſeparated part again ſunk down to the earth, recovered their former dark colour, and alſo their former height; ſo that I was ſcarcely able to diſtinguiſh this part from the remainder of the row. Some traces, however, of the former tranſformation remained. I was therefore induced to examine the whole row throughout with the greateſt attention; and, on doing ſo, I imagined that I obſerved ſome parts which lay a little more in the back ground, and which, as I conjectured from certain ſigns, would appear transformed in the like manner when viewed from a ſomewhat low point of ſight. In regard to the loweſt ground line of the row of trees, it appeared, on account of the diſtance and thickneſs of the atmoſphere, too undefined to perceive bendings in it: I was not able to obſerve the trunks of the trees, which I diſtinguiſhed from the ſurface of the moor merely by its brown colour being rendered leſs pale by the intervening ſtratum of air, by the trees having a higher poſition, and by their being ſeen through a purer ſtratum of the atmoſphere. On again deſcending, I ſaw thoſe parts of the row which I conſidered as the moſt remote, gradually raiſe themſelves above the horizontal plain; ſo that they ſeparated themſelves from the row in which they ſtood, and ſeemed to float in the air behind the row which now had the appearance of being broken. When I reached the valley, where I was however ſomewhat elevated above the level of the moor, theſe phenomena began to appear in the foremoſt row, where the firſt breaking appeared. I again thought I ſaw the heavens below the trees at the extreme edge of the moor. Theſe trees alſo appeared to be floating in the air, but they did not elevate themſelves above the ground ſo much as thoſe I firſt obſerved. As I advanced further in the valley, my horizon did not any more change in a perceptible manner; though my poſition in regard to certain parts of the row of trees was conſiderably altered, which produced ſeveral modifications of the phenomenon. The elevation of the trees above the horizontal ſurface increaſed the further I proceeded, but gradually decreaſed in thoſe parts from which I receded, and where it had firſt begun, and at length the whole diſappeared when I aſcended the oppoſite hill.

This circumſtance of the phenomenon led me to an obſervation, from which I concluded that refraction had no ſhare in it. The maſſes of the diſtant trees which raiſed themſelves from the ground, were ſituate between parts of the foremoſt row, which for a conſiderable time did not change their poſition; and theſe unchanged parts gave me fixed points, by which I was enabled to eſtimate the elevation of the objects; and it was this eſtimation which conducted me to a knowledge of the nature of the phenomenon.

The intervals where, in conſequence of my progreſſive motion forward, the heavens appeared under the moſt diſtant trees, raiſed themſelves more the lower my ſtation became on the hill, and the further I advanced in the valley: but the ſummits of the floating trees were not elevated; on the contrary, they ſeemed ſomewhat depreſſed in compariſon of the foremoſt trees. The maſſes became ſhortened below, but at the top they remained on the ſame level. I had ſufficient opportunity to confirm this circumſtance, as, by changing my poſition in a vertical and horizontal direction, I ſaw three different maſſes ſo totally diſappear, that, in the interval which they before occupied in the row of trees, nothing more was to be ſeen but the pure heavens. On one of theſe maſſes diſappearing in this manner, when I retired back from my poſition, there firſt appeared toward the heavens ſome brown ſpots, which were the higheſt ſummits of the trees, and the more I receded, the more it ſeemed as if a curtain dropped down which concealed the part of the heavens before ſeen. But with whatever attention I looked toward the ſpot where this curtain fell down, and where the ſummits of the trees at length diſappeared, I could obſerve nothing but the pure heavens. Had a perſon, without ſuſpecting any thing of this optic transformation, ſeen from the valley the row of trees in the horizon evidently broken, and had again ſeen from the hill without obſerving the gradual change during the time of advancing, the ſame row once more in the horizon entirely whole, without any interval or break, he would certainly not have believed his own eyes.

Between this phenomenon and that where the coaſts appear elevated in the like manner, I could obſerve no difference in regard to the cauſes which produce them; and the ſame identity is applicable to thoſe phenomena which I obſerved in another moor in the ſame neighbourhood about two years before; only that the trees which formed the horizontal boundary ſtood actually in a line, ſo that the whole row ſeemed floating in the heavens at once, and not in portions at a time. All theſe phenomena then are identically the ſame, and it follows from the circumſtances here deſcribed, that they do not depend on refraction. The cauſe alone lies in the rays of light reflected from the vapours, which in conſequence of this reflection appear ſo dazzling

to

to the eye, that they conceal the objects ſituate below, and preſent the ſame appearance as the heavens. The ſun, as already ſaid was toward that ſide where I ſaw the phenomenon, and his altitude was conſiderable, as I obſerved the above transformation on the 18th of July, between the hours of nine and ten. While I obſerved from the valley ſeveral of theſe broken parts of the firſt row of trees, the ſun was in a perpendicular direction over them. The elevation of the maſſes above the ground increaſed in general more and more as my ſituation became gradually lower, and according as each maſs of the objects to be changed approached nearer to a perpendicular poſition under the ſun, in conſequence of my advancing in a horizontal direction. As I deſcended, I had between me and the objects a ſtratum of the atmoſphere, which was always denſer, and conſequently more proper for reflecting the rays. When I advanced in the horizontal plain, this reflection took place more in a ſtraight line; and when I came into ſuch a poſition that the vapours threw back the rays of light to the level of the ſummits of the moſt diſtant trees, I ſaw nothing but this luminous vapour, which loſt itſelf in the heavens, and formed with them one continued field. When I had reached the loweſt point of the plain, where I found a favourable point of view, ſome of the foremoſt trees could then raiſe themſelves from the ground, becauſe they were nearer to me; and to compenſate for this greater proximity, the rays of light muſt have penetrated a much thicker ſtratum of the atmoſphere, and muſt have proceeded from a point ſo much nearer the perpendicular poſition under the ſun.

The preſence of the ſun is the principal condition of this phenomenon: without the action of the ſun's beams, the vapours would not be denſe enough to conceal the objects: it is by means of the ſolar rays that they are made to diſappear from the eye. Theſe rays, however, can be tranſmitted to the eye only under a given angle, in the ſame manner as a certain angle is required in order to produce the rainbow by refraction. The ſtratum of air which is ſufficiently denſe to effect this reflection of the ſun, riſes to a certain height, but it can be perceptible to the eye only when the vapours actually throw back a great number of rays. As ſoon as the point of ſight correſponding to this effect is obtained, the eye ſees only the ſhining vapour which it cannot diſtinguiſh from the heavens. This diſappearance, however, takes place in regard to diſtant as well as to near objects, and rather at the lower than the upper part of the object, becauſe, in the firſt caſe, the direction of the line of ſight paſſes through a larger maſs of vapour, and in the ſecond through a denſer ſtratum. The leſs denſe part of the vapour, which did not reflect rays of the ſun, but which always grew denſer the lower my ſtation became, acting like a veil, which interpoſed itſelf between my eye and the trees which had not yet diſappeared, made me ob-

ſerve their diſtance, and contributed to cauſe the elevated trees to appear as if floating behind the row.

In regard to the circumſtance that the tops of the diſtant trees did not raiſe themſelves above thoſe of the foremoſt, though their lower parts ſeemed to riſe above the ground as I deſcended, and that theſe tops on the contrary ſeemed ſomewhat depreſſed; it aroſe from the decreaſe in the elevation of my point of ſtation having a greater ratio to the leſs diſtant than to the moſt diſtant trees; by which means, the former were raiſed more in the ſame proportion above the horizon.

When this phenomenon is obſerved on the banks of large pieces of water, and when the objects are at different diſtances from the obſerver, the truth of the principles here advanced may be confirmed by remarking, that the phenomenon is modified by a change of poſition; but if the obſerver can move about in a horizontal direction it will be of great uſe to obſerve the changes of the object in a vertical direction, ſuppoſing he has opportunity, on any gradual declivity, of aſcending and deſcending. If the vertical object of the objects then changes, ſo that their total height decreaſes the more the objects ſeem to riſe from the ground when the obſerver deſcends the declivity, this is a ſufficient proof that the whole image is not elevated, but that its loweſt part diſappears from the eye, behind a maſs of vapour ſo condenſed that it cannot be diſtinguiſhed from the ſky above or the water below.

I entertain no doubt, that this is the real cauſe of all the phenomena of this kind, as I have never been able to comprehend how ſuch phenomena could be produced by refraction.

When the objects which are ſeen under water appear elevated in different degrees, it may be readily conceived that the rays of light proceed from the water, which is very denſe, into air, which is much rarer. When we ſee the celeſtial bodies above the horizon, while they are actually below it, we may eaſily conceive that the rays of light, proceeding in an oblique direction, ſometimes paſs through rarer and ſometimes through denſer ſtrata of the atmoſphere. But, in the preſent caſe, there is no difference in the ſpecific denſeneſs or rarity, and the correſponding power of refraction of the medium through which the ray of light is tranſmitted to the eye; and if an actual elevation takes place by refraction, the action muſt be equally great from water or from a lake, and on the objects oppoſite to them; conſequently the whole maſs of theſe objects muſt appear equally elevated, without any interruption being obſerved in them.

I ſhall here add, that I have been very often deceived in theſe moors, ſo that I thought I ſaw at a great diſtance lakes and rivers, where my drivers aſſured me there was nothing of the kind.

This was always the caſe in the morning, and when the ſun by ſtanding over the objeƈt gave riſe to the illuſion. Had not the horizon on theſe occaſions been bordered with a row of ſmall hills, I ſhould certainly have believed that I ſaw not only a piece of water, but even the heavens. The hill prevented me from ſeeing at one view the heavens and the luminous vapour, and the vapour ſeen alone appeared to me as an extended piece of water illuminated by the reflection of the heavens.

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*Letters written during an Excurſion through France to Geneva.*

(Continued from Page 52.)

LETTER V.

*Provins, Thurſday, Dec.* 10, 1801.

I Give you the date of this letter with great parade of circumſtantiality, becauſe I ſuſpeƈt it may not be right, and you will thus have an opportunity to correƈt it: the faƈt is, that I am not initiated into the myſteries of the new calendar; and as the old one is obſolete in this country, between the two I have almoſt forgotten how time goes.

We have now left the capital of France, and are making rapid ſtrides to Geneva; perhaps you will follow us on your map, where you will travel with much more eaſe, expedition, and ſafety, than we can do on theſe unmerciful roads: with that in your hand.

A river or a ſea
Will be to you a diſh of tea,
And a kingdom, bread and butter.

Our plan is to paſs through Troyes and Dijon, to croſs the vaſt chain of Mount Jura, and ſtep over the little neck of Switzerland which divides France from Geneva; here we ſhall remain no longer than is neceſſary to tranſaƈt our buſineſs, and then return by a different road, if we can without materially lengthening our journey, in order to ſee as much of the country as poſſible; but aſſure yourſelf, that

" Where'er I roam, whatever realms to ſee,
My heart untravell'd fondly turns to thee;
Still to my ** turns with ceaſeleſs pain,
And drags at each remove a length'ning chain."

We ſet off this morning at half after eight o'clock, having waited for the laſhing on of the luggage a full hour and half: our

our faithful courier de Buck, never ſuffers a trunk to be faſtened on behind; and to-day we experienced the wiſdom of his proviſion, for the roughneſs of the pavé had ſo looſened the cordage, that two of the trunks were within a very little of the ground, when one of us obſerved the accident time enough to prevent the ill conſequence. I leave you to imagine the comfortable congratulation we ſhould have made to each other after a long day's journey, at the loſs of our luggage, which, had it been placed behind inſtead of before the carriage, would, in all probability, have befallen us.

I have once or twice hinted to you the great uſefulneſs of our courier: indeed we are exceedingly fortunate, and particularly ſo, conſidering the circumſtances under which we engaged him; amidſt the confuſion and buſtle of preparation for our journey we had abſolutely omitted to take any ſteps towards procuring a travelling ſervant, till the chaiſes which took us the firſt ſtage for Dover were ordered to the door! We inſtantly ſent to two or three places, and in leſs than five minutes had two or three applications. Francois de Buck brought his credentials of good character in his pocket, which we were lucky enough to have authenticated without any delay: we hired him on his own terms, which were ſo moderate, that we felt no diſpoſition to abate him one ſixpence.

De Buck is an extraordinary man, or I ſhould not have introduced him to your acquaintance. He is a Swiſs by birth, and is about three or four and forty years of age: when quite a youth, he cultivated a ſmall farm with ſucceſs, and here he expected to eſtabliſh himſelf for life with a young woman to whom he had been long and tenderly attached. His father, however, a ſevere and determined man, oppoſed the connection, probably from prudential motives, and inſiſted that his ſon ſhould for ever break it off, or inſtantly quit the farm, and be turned pennyleſs on the world. The indignant youth ſcorned the alternative; and as he could not enjoy the patrimonial inheri ance of his father with the girl of his heart, he would not enjoy it without her. He packed up as many cloaths as he could conveniently carry on his ſhoulder, collected all the ſavings of his farm, which amounted to a conſiderable ſum, and ſet off at the dead of night, from his own houſe, to which he has never ſince returned! It was ſome time before his family heard any thing of their loſt ſon; the latter, however, at length thought proper to acquaint them with his ſituation and his ſchemes; he has kept up an occaſional correſpondence ſince, and has it in contemplation to pay them a viſit in the courſe of the enſuing ſummer.

The young adventurer engaged himſelf as valet to a gentleman who was then going abroad, and demeaned himſelf with ſuch propriety, as to obtain from him a valuable recommendation when he quitted his ſervice: his paſſion for travelling has

increaſed with his opportunities for indulging it, and he ſtates himſelf to have refuſed ſeveral very tempting offers of ſettlement which his patrons (many of them perſons of rank) have made him in conſideration of his ſervices. He has been fortunate in his maſters, and ſays, that he has acquired a competence, with which he is now in a ſituation to retire from buſineſs whenever he may be diſpoſed. He has repeatedly travelled over almoſt every country in Europe, and has reſided for a conſiderable time in the Weſt Indies. There is ſcarcely a living language with which he is not acquainted: he ſpeaks Engliſh, French, and Italian; High Dutch, Low Dutch, Spaniſh, German, and Ruſſian, and can converſe with a wild Iriſhman or a Scotch Highlander in his own tongue. With this jargon in his head, it is not to be ſuppoſed that he ſhould trouble himſelf much with grammatical refinements: in ſhort, though he ſpeaks every language he does not underſtand one, not having one which he can call his own; and it is no uncommon thing with him to begin a ſentence in one language, and finiſh it in another.

De Buck is a tall athletic man; active, patient, or rather ignorant of fatigue; he is extremely attentive and obliging, and we have every reaſon to believe him moſt ſcrupulouſly honeſt—in one word, he is a very valuable ſervant.

The country over which we have travelled to day is very generally cultivated: it is almoſt a dead flat, uninterſected by a ſingle hedge; an immenſe breadth of wheat is growing, but it is almoſt every where ſodden with water. If the French can grow crops with their preſent careleſs cultivation, what would they do if an Engliſh farmer could ſit down among them, and encourage the natural fecundity of the ſoil by his ſkill and induſtry?

Every inch of the ground we have travelled to day is paved preciſely like the ſtreets of London, and the broad road is on either ſide ornamented with a ſingle line of lofty trees; the perſpective produced by this long viſta is extremely pleaſing, even in the leafleſs month of December—in the ſummer ſurely it muſt be delightful.

*Troyes, December* 11.—Sixty miles on the pavé yeſterday had well nigh diſlocated every bone in our frames, and I was heartily glad to ſtretch my limbs between the ſheets: indeed I foreſee that it will not be in my power to devote much time to you till we get to Geneva. We breakfaſt early, and from the time we enter the carriage ſtop not for refreſhment till we have reached the end of our day's journey: a good dinner and a bottle of Burgundy have then a very ſoothing and ſoporific influence. The face of the country to day is very much the ſame with that we had already paſſed over: here is an immenſity of young wheat, much of which looks flouriſhing. We ſee no ſtock except a few ſheep, no turnips or winter-food of any ſort:

no

no corn-ſtacks! Thirty miles in any corn-county of England would exhibit to a traveller more corn-ſtacks than the three hundred which we have travelled in the interior of France. I cannot conjecture where the depoſitories of corn are, or where the live ſtock is, for here certainly can be no deficiency of either. We ſee but few barns and remark an extreme rarity of farm-houſes! We are compelled, therefore, to form a very inadequate idea of the population of France, which here is apparently thinner than that of England. The proportionate population even of Paris itſelf appears to be much leſs than that of London; no ſtreets in the former place exhibit ſuch a crowded ſcene as Cheapſide, Ludgate-hill, Fleet-ſtreet, and the Strand. When we made this remark to our friend B——, he accounted for the deception, (for ſuch it probably is) from the ſuperior accommodation which London affords for its foot-paſſengers:—In Paris there is no ſeparate pavement, ſo that there are almoſt as many walkers in the middle of the ſtreet as there are on its ſides; thus diſperſed, they appear to be leſs numerous than in London where a foot-man never leaves the ſide-pavement, except to croſs over the ſtreet.

*(To be continued,)*

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## INTERESTING TRIAL.

### *COURT of KING's BENCH, July* 10.

Before LORD ELLENBOROUGH.

KEAR *v.* LOGAN.

MR. ERSKINE ſtated, that the plaintiff, Mr. Peter Kear, was a perſon who made machinery for threſhing corn, and ſeparating the ſtraw from it when threſhed, and he was employed by the defendant, Mr. Robert Logan, to make a rack, and ſome other alterations in the machine, which he had ſome years ago bought for that purpoſe. The perſon employed to do this work was one of the name of M'Donald, who would give an account of the matter, and who was a particular friend of the defendant, who ſuperintended moſt of the buſineſs between the parties, and who introduced them to each other, and he was alſo the foreman of the plaintiff. The charge which the plaintiff made upon the defendant was 66l. 9s. The defendant had paid into court 35l. Now he ſhould be able to ſatisfy the jury, that the materials made uſe of by the plaintiff in this work amounted to 11l. 15s. 7d. and that it would appear, that the wages of ſervants employed, and other expences, amounted to 40l. 14s. 9d. making together 52l. and upwards. So that if the defendant were to ſucceed by obtaining a verdict upon the payment

payment of 35l. into court, the plaintiff, inſtead of having a living profit upon his buſineſs, which every man was entitled to expect (or, of courſe, trade would be at an end), would be upwards of 13l. actually out of pocket in this caſe. He truſted the jury would think that the plaintiff had not aſked for more than a living profit, and that they would give him a verdict for the balance. There was no pretence of any defect in the machinery, no complaint of its not doing properly its work. The whole queſtion would be, whether the plaintiff's bill was reaſonable or extravagant; he underſtood, however, that the defendant had got ſome people to look at this machinery, and ſome of them might perhaps ſay, they thought other machinery for the like purpoſe had been done cheaper, but this was nothing to the plaintiff; particularly as no notice had been given to the plaintiff in order that he might have an opportunity of either being preſent himſelf, or of ſending ſome perſon on his behalf, to explain the nature of the work he did, and ſo on; beſides, there might be a difference in the price of work, as well as the materials, according to the part of the country where the work was performed. He ſhould call his witneſſes to prove this caſe, and then it would be for the jury to ſay what the plaintiff deſerved to have.

John M'Donald ſaid, he was the foreman of the plaintiff; he was intimate with the defendant, and did this work by order of the defendant. That 52l. was the bill for materials, wages of men, &c. for doing the work in queſtion upon this machinery. That there were four men employed upon the work: that there were no more materials than were neceſſary for the work, which was done in the very beſt manner: the witneſs underſtood this buſineſs well, he having worked for the original inventor of the machinery.

Some other witneſſes ſtated the charge in this caſe to be reaſonable; but there being a diſpute as to the teſtimony of ſome of them:

Lord Ellenborough obſerved, that caſes of this kind were daily occurring, and therefore it was well to have it underſtood what the rule was to be that guided the diſcuſſion of them. He took it to be this—Where work and labour was performed, and materials provided, it was fair to take it for granted that both the labour was adequate, and the materials fit for the purpoſe they were intended for on ordinary evidence, and that it ſhould then be taken that the party claiming compenſation had acted *bona fide*, until it ſhould appear on the other ſide that there was ſome defect in either, and that it reſted with the party reſiſting the demand to ſhew that either the work was not done, the materials not found as charged, or that the price was not reaſonable, but that where there is no ſpecific ſum agreed upon, for a given quantity of work or materials, it ſhall then be eſtimated at the price

which is reaſonable, according to the opinions of thoſe who are in the ſame way of buſineſs.

On the part of the defendant Mr. Garrow contended, that the price charged by the plaintiff in this caſe was unreaſonable; that the defendant had paid 35l. into court, and had before that time offered that ſum which was 7l. more than was computed to be the full value of it by thoſe who underſtood the matter perfectly well, and had further offered, that if the plaintiff liked it better, to refer the diſpute to arbitration in the uſual manner, the plaintiff to nominate one perſon and defendant another, and if they differed in opinion, that they ſhould chuſe a third perſon, but which the plaintiff refuſed.

He then called ſeveral witneſſes, to prove that, in their opinion (and ſome of them had the ſame buſineſs as this done for them, within a mile and half of the place where this was done), the whole was not worth above 28l. ſo that, according to them, the plaintiff was 7l. overpaid, by the ſum of 35l, being paid into court.

Lord Ellenborough obſerved to the jury, that this caſe, although not conſiderable in point of ſum, was rather material in point of principle, for the queſtion which it involved was this —When a tradeſman was employed to do any particular work, without ſpecifying the price of that work, or without ſettling before hand what was to be the compenſation for that work, what was to be the rule by which the charges for ſuch work ſhould be meaſured; and upon this his lordſhip ſaid he had no difficulty in aſſerting, that the rule which ought to be laid down in ſuch a caſe, was this "That in the abſence of ſpecific agreement, the meaſure of allowance ſhould be, that which was uſually charged by thoſe who were in the habit of performing the ſame ſort of work, and that muſt be made out by the evidence of perſons who were in ſuch habits." That being the rule of common ſenſe, was alſo the rule of juſtice in ſuch caſes.

There was no doubt the labourer was worthy of his hire, by which was meant a juſt compenſation for labour; but it was equally true, and equally important to the public to know, that where a man does not make a ſpecific bargain before hand of what he is to pay for that which he orders to be done for him, he ſhall not be made ſubject to the extortion of the perſon he employs; and therefore it was, his lordſhip ſaid, that this caſe was important in point of principle. Now, upon this caſe, it appeared from the evidence of ſeveral perſons, qualified from their buſineſs to form an opinion upon this ſubject, both neighbours of the defendant, on whoſe premiſes the buſineſs was done, and others from Yorkſhire, who had the ſame buſineſs done for them, and to whom the difference was only the difference of the price of labour of two men for eighteen days, and which amounted only to twice eighteen threepences; that this charge

made

made by the plaintiff upon the defendant ought not to have been above 28l. for the labour, materials, &c. Now, between theſe parties, the real queſtion was this—Was this a fair and reaſonable, or a very unfair and enormous charge? for really there was no meaſuring caſt between them. The witneſſes for the defendant ſwore, that 28l. were ſufficient; if ſo the defendant had acted liberally, for he had paid into court 7l. more than was neceſſary, and what ſhewed at leaſt the candour of the defendant was, that after this eſtimation was made, by theſe perſons, he offered either to pay this money, or if the plaintiff liked it better, to leave the whole matter to arbitration, and if under that arbitration, more had been ordered, more muſt have been paid by the defendant to the plaintiff. It was, under theſe circumſtances, a queſtion for the jury to decide, whether 35l. or 66l. ought to be paid to the plaintiff in this caſe. "Once more," ſaid his lordſhip, I will take the liberty of ſaying to you, "gentlemen, that it is extremely important to all thoſe who place confidence in the candour and integrity of a tradeſman, or in any other perſon they may employ in any buſineſs in which no ſpecific price is agreed upon, to know—it is important for tradeſmen themſelves, who undertake to perform any work where no ſuch ſpecific price is agreed to be paid to them to know, that by the law of this land, thoſe who thus employ them are not delivered over to them to pay whatever charges they may think fit to make, but that the rule for meaſuring their charges in ſuch caſes is, that which others in the ſame trade charge in the fair honeſt purſuit of that trade. What ſuch perſons feel to be a reaſonable allowance, is the price which the law ſets upon ſuch labour, and therefore a jury, while it gives to the labourer the fair value of his hire, will take care to ſecure his employer alſo from the injuſtice of an exorbitant demand.—The queſtion therefore in this caſe is no meaſuring caſt, but whether 66l. or 35l. be a proper ſum to be allowed to the plaintiff for what has been done in this caſe, of which you are the judges, and which I leave entirely to you."

The jury ſaid, that the 35l. were full enough in this caſe, and therefore found a verdict for the defendant.

Mr. Garrow ſaid, he hoped his lordſhip thought this a fit caſe for a ſpecial jury.

Lord Ellenborough ſaid, certainly he did, and therefore certified accordingly.

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## *A* HINT.

A Clergyman is moſt reſpectable, who keeps to his ſtudy and pariſh, and engages as little as may be in mixed company. He ſhould be careful not to *defecrate* himſelf, by letting himſelf down.

## INGENIOUS MACHINES *in* SWEDEN.

AT Stockholm is to be ſeen a cabinet of models, or repoſitory of machines, which is, perhaps, the moſt complete collection of the kind that exiſts. The models are either new inventions or improvements in machinery; they are kept in a ſpacious room, and arranged in a very elegant manner. Among the models for rural economy may be obſerved, various kinds of mills, inſtruments for ſowing grain, for ſhearing, gathering the crop, and thraſhing it; hydraulic machines, ſtoves uſed in the mines, and pumps, with their apparatus.

It may ſeem hardly credible, but is nevertheleſs true, that in Sweden a mechanical overſeer has been invented to perform the duties of ſuperintendant over workmen. A conſiderable part of the labour in the mines conſiſting in working the pumps, a clock has been invented for marking the number of ſtrokes given by the pumpers; ſo that the proportion of work they have performed is readily aſcertained. Many other equally ingenious contrivances may be ſurveyed in this curious repoſitory.

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## ELECTION *for* OLD SARUM.

THE election for the borough of Old Sarum was held on Monday, July 12, 1802, in a temporary booth erected in a corn field, under a tree which marks the boundary of the former population of the old town, not a veſtige of which has been ſtanding in the memory of man, the ſeveral burgages which give the right of voting being now without a dwelling for a human being.

Mr. Dean, the bailiff of the borough, having read the precept for holding the election, and cauſed proclamation thereof—having taken the oath againſt bribery, read the bribery act, and gone through all the other legal ceremonies, the Rev. Dr. Skinner roſe, and nominated Nicholas Vanſittart and Henry Alexander, Eſqrs. "from a thorough conviction that their public conduct would be ſuch as would give ſatisfaction, and do honour to their conſtituents."

The other electors acquieſcing in this nomination, and no other candidate offering (though proclamation was thrice made for any gentleman, who might wiſh ſo to do, to come forward), the bailiff ſaid he muſt of neceſſity conſider the above two gentlemen to be duly elected, and he accordingly declared them repreſentatives of the borough in parliament.

There were five electors preſent, beſides the bailiff (who lives at Wimborne), viz. the Rev. Dr. Skinner, of the Cloſe at Saliſbury; the Rev. Mr. Burrough, of Abbot's-Ann; William Dyke, Eſq. of Syrencot; Mr. Maffey, and Mr. Brundſdon, both occupiers of land within the limits of the borough.

*Anſwer, by T. Richards, Jun. to T. Jarvis's Charade, inſerted June 21.*

THE town is READING that you mean,
As in your charade's plainly ſeen.

☞ We have received the like anſwer from J. Sweetman, of Everſhot; Juvenis, and W. England, of Dorcheſter; J. Lewis, and T. Adey, of Poole; J. Whittle, of Upway; R. Maſſett, of Saltaſh; and W. Strong, P. Gove, and H. Humphreys, of Exeter.

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*Anſwer, by J. Whittle, of Upway, to Angelina's Rebus, inſerted June 28.*

THE poet's EDWIN, whom you mean,
Join the initials, then 'tis ſeen.

†§† We have received the like anſwer from T. Adey, and J. Lewis, of Poole; G. H. near Bridport; H. Humphreys, of Exeter; and Juvenis, of Dorcheſter.

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*An* ENIGMA, *by J. Taylor, of Sidbury.*

ROUSE, ye bards, and ſing my praiſes,
As the circling glaſs you pour,
When the ſparkling bowl much pleaſes,
To enjoy a ſocial hour.

For with mirth and gay-ey'd pleaſure
I a boon compaſſion am;
When with what ſome deem a treaſure,
You ſhall full my carcaſe cram.

When your head with pain is aching,
After a long night's debauch,
Blame not me—my laws forſaking,
You intemperance doth approach.

Freely I may call you brother,
Tho' ſuperior is your ſtrain,
Since the earth's our common mother,
And demands us all again.

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ANAGRAMMATICAL CHARADE, *by T. Jarvis, of Malborough.*

GENTS. my firſt you might find, if you would but incline,
Your covering to wear till in tatters;
But you're always intent, ſuch things to prevent,
When ſtriving to mimic your betters.

Yet I'll venture to ſay, it is certain one day,
You'll no longer be proud in the wearing;
For in time, Sirs, I wot, to my next 'twill be brought,
And then you'll not think of repairing.

I hope you'll excuſe my pitiful muſe,
While my theme you with care ponder over;
Both parts then unite, and tranſpoſe them aright,
And my whole you will quickly diſcover.

'Tis where oft I repair, to breathe the freſh air,
And ſurvey the choice beauties of nature;
But I'm loſt in amaze, while with wonder I gaze,
On the works of my Bounteous Creator!

# POETRY.

For the Weekly Entertainer.

*Stanzas compoſed at Tremarton Caſtle, on the Banks of the Tamer, in Cornwall, at the Requeſt of ſome young Ladies.*

TO paint thy wild, romantic heap,
Thou ruin on the mountain's ſteep,
Requires a favour'd muſe;
Full gladly I'd reſign the taſk,
But what the fair of *Cornwall* aſk,
I never can refuſe.

Hail ancient ſeat of fallen pride,
Around whoſe ivy-mantled ſide
I could for ever ſtray;
And trace, with fond delight, the ſcenes
Of rocks, and vales, and woodlands green,
In nature's fair array.

Now balmy zephyr, child of ſpring,
With freſhneſs on its breezy wing,
To chear the tepid hours,
Soft whiſpering in aerial flight,
Oft fans, O Tremarton! thy height
Of battlements and tow'rs.

Behold old Tamer's winding ſtreams,
Where ſtill the ſun's departing beams
Along the ſurface dart;
Where lately on the flowing tide
Thick ſtand the fam'd Britannia's pride,
The works of human art.

How rich are nature's charms around,
Where diſtant Edgcumbe's highland ground
Appears in vernal green!
What ſcatter'd towns, and rural glades,
What ſun-tipp'd hills, and lowland ſhades,
Surround the va.ying ſcene!

And thou, O Tremarton, how grand!
Tho' ſobb'd, alas! by time's rough hand
Of all thy ancient ſway;
How grand, how awful art thou ſtill,
On the ſteep ſummit of the hill
Beheld, ah! far away!

But where are thoſe that rear'd thy head?
Their children's children? *All* are fled
To death's unbounded ſea;
And when a few ſhort days are paſt,
Oblivion's mantle will be caſt
O'er him who ſings of thee.

To glory in a brother's ſpoils,
No more the fiend* of civil broils
The villain's heart invites;
No more our happy country calls
For thy high tow'rs and hoſtile walls
To guard her native rights.

Ah! no: For now the Britiſh iſles,
Bedeck'd in union's lovely ſmiles,
For foreign foes prepare;
And ſoar on valour's warlike wings,
To ſerve the very beſt of kings,
And guard the Britiſh fair.

*Devon.* HILARIUS.

* This caſtle was, it is probable, erected during the civil wars.

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*Addreſs of a Felon to his Child, on the Morning of Execution.*

Inſcribed to the Philanthropic Society.

*By Mrs.* OPIE.

POOR babe! that, thro' this darkſome grate,
Survey'ſt yon crowd with curious eye;
If thou would'ſt learn, why thus they wait—
Know, 'tis to ſee thy father die!

To ſee, how I that death ſhall bear,
They deem for crimes like mine moſt fit;
Crimes, urg'd by want, which many, there,
Were never tempted to commit.

A death, ſweet innocent! for which
Thou'lt be, alas! one day revil'd:
For, with my guilt, the rude of ſpeech,
Too often will reproach my child.

Poor outcaſt! whither canſt thou turn?
Thy future fate adds pangs to mine:
I'm my offences doom'd to mourn;
And fear, devoted babe! for thine.

For, all thou canſt from me receive,
Is but a legacy of ſhame;
And,

And, ſhould'ſt thou up to manhood live,
Thou'lt learn to curſe thy father's name.

But, while my guilt's to thee unknown,
Come! let me preſs thee to my breaſt;
Thou treaſure, without crime my own;
Thou only wealth I e'er poſſeſs'd!

Thou pledge of pure and faithful loves;
Image of one I ſtill deplore—
Yet, now, her death a bleſſing proves;
She lives not to behold this hour!

But, from my arms, ah! wherefore fly?
Why do I court thy kiſs in vain?
Whence ſpring thoſe tears? What means that cry?—
Ah me! thou fear'ſt my clanking chain!

Till now I felt not all its weight!
But ſoon—(bleſs'd thought!)—my limbs they'll free;
And, when I'm ſummon'd to my fate,
Theſe arms, unchain'd, may cloſe on thee!

Then welcome, cruel hour of death!
Thou'lt be of ſome keen pangs beguil'd;
For, ere I yield my forfeit breath,
I cloſely may embrace my child!

And, ſee! they come to take me hence
My injur'd, orphan babe, adieu!
O cruel world! for my offence,
Wilt thou this child with horror view?

Ah! yes with me his hopes muſt die;
For none will take him to their care:
The prudent e'en his ſight will fly;
Leſt with my blood my guilt he ſhare!

And ſoon, to vice and miſ'ry driv'n,
Unknown or elſe diſdain'd by worth;
Untaught, my child, the way to Heav'n,
You'll yet be judg'd unfit for earth!

* * * * * * * * * * *

What words are theſe! that to my ſoul
A feeling, like delight, impart?
That fear and agony controul,
And bind an almoſt broken heart!

They ſay a gen'rous few have join'd,
(The pride of theſe enlighten'd times!)
Poor outcaſt orphan-babes to find,
And ſave them from their parents' crimes!

Inſtruction's page to them they ope;
Bid them aſpire to honeſt fame;
And by their own good actions hope
To wipe away their parents' ſhame.

Bleſt men!— a dying culprit's pray'r
Now ſeeks for you the heav'nly throne:
For making thus our babes your care,
May Heaven reward ye in your own!

---

*On* HAPPINESS.

HAPPINESS, celeſtial maid!
O'er my heart thine influence ſhed—
Deign, O deign! thine aid impart,
And keep me void of glare and art.
Would you know where ſhe is found,
Where with peace ſhe loves to dwell:
Far from noiſe and buſy ſound,
In the cottage and the dell.
Seek her not in gilded roofs,
Nor in palaces of ſtate;
Happineſs you ſeek in vain,
If you ſeek her with the great.
Seek her not among the crew,
Who with bumpers drown their care.
Her delight is with the few,
Who love peace and pleaſe the fair:
Come thou, whoſe ſmiles beguile each hour,
Whoſe voice can cheer me eve and morn,
For thee I'll deck my verdant bower,
And pluck a flower from every thorn.

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*Verſes by a Pen, which a Poet picked up on a Gooſe-green.*

DROPT from a ſtupid gooſe's frame
As on the verdant graſs I lay;
A wandering poet near me came,
And bore me as his prize away.

Proud of my change, no more I find
My doom to aid mere brutal flight;
I help the exertions of the mind,
And live in man's exalted ſight.

Planted in Pegaſus's wing,
To the Aonian mount I ſoar;
I help the poets when they ſing,
And when the muſes they adore.

The parſon, politician, ſage,
Embrace me in their ſecret bow'r:
By me they form th' hiſtoric page,
And thus inſtruct to lateſt hour.

Tho' from the bird of dullneſs ſprung,
To heavenly genius I belong;
To brilliant thought I give a tongue,
And claim a right to live in ſong.